

Application No. 10/693,163
January 3, 2007
Amendment Responsive to the First Office Action

Remarks

Pending Claim 37 stands objected to and rejected by Examiner. All other claims are cancelled. Pending claim 37 stands rejected under 35 U.S.C. §102(e) as anticipated by Kinjo (US Pub. No. 2003/0193582 A1), rejected under 35 U.S.C. §112 as being indefinite and failing to particularly point out and claim the subject matter of the invention, and objected to for certain irregularities. In response to the Office action, Applicants have edited claim 37.

Objection

Examiner objects to the use of the words "can" and "using" because they cause the associated limitations to carry no patentable weight. Following is a clean version of Claim 37:

37. A method comprising:

obtaining one or more stored images wherein the one or more stored images are stored within an image database, wherein the stored images are associated with at least one of one or more keywords, wherein a multitude of keyword statistics are stored in a database statistics module, and wherein the keyword statistics indicate a probability that one of the keywords and another one of the keywords are both associated with the same stored image;

obtaining an image and comparing the image to the stored images to identify one or more similar images wherein image similarity is based on at least two factors, wherein one of the at least two factors is closeness in time of image

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acquisition and wherein another one of the at least two factors is determined using a content based image retrieval module;

producing at least two primary keywords based on the keywords associated with the similar images;

determining at least two primary likelihoods associated with the primary keywords;

producing at least two secondary likelihoods that identify at least two finer scale keywords wherein the secondary likelihoods are based on the keyword statistics and the primary likelihoods such that the finer scale keywords are keywords that are likely to occur in association with at least one of the primary keywords;

presenting the primary keywords the finer scale keywords, and a new keyword selection to a user ;

obtaining one or more accepted keywords from the user wherein the accepted keywords comprise any one of or combination of the primary keywords, the finer scale keywords, and one or more new keywords entered via the new keyword selection ;

storing the image within the image database and in association with the accepted keywords; and

updating the keyword statistics wherein the keywords further comprise the accepted keywords.

Applicant has edited the claim as per Examiner's suggestion to recite more firm and positive language.

Rejection under 112

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Examiner pointed out that the use and treatment of the accepted keywords was indefinite. Applicant responds by redrafting the claim for enhanced clarity. In particular, the "at least one" language has been changed to "one or more" such that the plural form of nouns can be used – thereby shortening and clarifying the claims.

Applicant has more carefully defined "accepted keywords" as comprising "any one of or combination of the primary keywords, the finer scale keywords, and one or more new keywords". The steps of the invention prior to keyword acceptance identify keywords that the user probably wants to associate with an image. The primary keywords are identified because they are associated with similar images. The finer scale keywords are identified because they often occur in conjunction with the identified primary keywords. As such, the user is presented with a list of possible keywords for the image. The user can accept some of them and can also provide new keywords.

Applicant also added an additional limitation "updating the keyword statistics wherein the keywords further comprise the accepted keywords" to clarify that the accepted keywords are keywords and that the keyword statistics must be updated because multiple keywords may be associated with the image (now a stored image) and new keywords might have been introduced.

Rejection under 35 U.S.C. §102(e)

Both Examiner and Applicant are well aware of the requirements for *Prima Facie* Anticipation. Applicant believes that Examiner has not met the burden of finding each and every element of the claimed invention in Kinjo.

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On a careful reading of Kinjo, Kinjo claims "types" and "sensitivity representation keywords". Kinjo's "types" appear to be nouns while the sensitivity representation keywords appear to be adjectives. Kinjo further discloses that "types" are associated with images whereas a "sensitivity representation keyword" is associated with a person's impression of an image and that different people can have different impressions of a single image. Examiner appears to analogize Applicant's "primary keyword" with Kinjo's "type". Examiner appears to analogize Applicant's "finer scale keyword" with Kinjo's "sensitivity representation keyword". These analogies fail because both fine scale keywords and primary keywords are keywords that can be nouns, adjectives, or other grammatical elements.

Examiner appears to analogize the portion of Kinjo's invention that maps nouns to adjectives with Applicant's database statistics module. The database statistics module is an element "wherein a multitude of keyword statistics are stored" and "wherein the keyword statistics indicate a probability that one of the keywords and another one of the keywords are both associated with the same stored image". Kinjo's invention uses an image to identify nouns and uses the nouns to suggest adjectives but does not obtain adjectives and use them to suggest nouns. Applicant's invention uses an image to identify keywords and uses the keywords to identify more keywords. All keywords in Applicant's invention are treated similarly. Kinjo has two separate things, types and sensitivity representation keywords that are treated differently and kept distinct.

Examiner appears to produce no analogy for Applicants "keyword statistics". Kinjo may be suggesting a statistical approach to mapping from types to sensitivity representation keywords. That, however, is a far cry from

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determining the statistics among keywords. Kinjo may look at the statistics of mapping from one class to another (noun -> adjective), but nowhere hints or suggests examining the statistics within a class (keyword -> keyword).

Examiner combines elements of distinct and incompatible embodiments while attempting to analogize to every element of Applicant's invention. Applicant's invention goes to tagging and storing images but does not directly address retrieval. Kinjo discloses embodiments that store images and embodiments that retrieve images. Only elements of Kinjo's image storage embodiments should be analogized to Applicant's invention because those are the only ones that could possibly provide correct analogies or could teach, motivate, or suggest. Furthermore keyword based retrieval is, quite frankly, as old as the first time a "clump" containing an image was stored in a relational database.

More specifically, Examiner references retrieval systems in Kinjo paragraphs 30, and 70-73. Examiner references methods for tailoring retrieval systems to individual users in Kinjo paragraphs 181-190, 200.

Recapping, all of applicant's keywords, whether primary, fine scale, or new are treated the same within the database statistics module because they are all keywords. This is in sharp contrast to Kinjo's types that are never used to identify other types. This is also in contrast to Kinjo's sensitivity representation keywords that are also never used to identify types.

Conclusion

In view of the foregoing remarks, the Applicants submit that Claim 37 is

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patentably distinct over the references and is in allowable form. Accordingly, the Applicants earnestly solicit the favorable consideration of their application, and respectfully request that it be passed to issue in its present condition.

Should the Examiner discern any remaining impediment to the prompt allowance of the aforementioned claims that might be resolved or overcome with the aid a telephone conference, he is cordially invited to call the undersigned at the telephone number set out below.

Respectfully submitted,



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